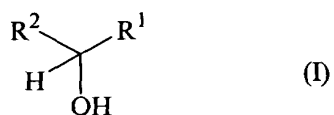


## The Claims

What is claimed is:

- 5                    1. A process for the oxidation of an unsaturated alcohol of formula



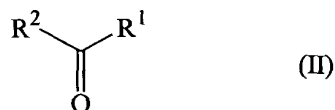
wherein:

- 10     $\text{R}^1$  represents a hydrogen atom, a  $\text{C}_1$  to  $\text{C}_{20}$  linear, branched or cyclic saturated or unsaturated hydrocarbon group, said hydrocarbon group optionally being substituted and also optionally including one or two oxygen or nitrogen atoms;

- $\text{R}^2$  represents a  $\text{C}_2$  to  $\text{C}_{20}$  linear, branched or cyclic alkenyl, alkandienyl or alkantrienyl hydrocarbon group, said hydrocarbon group optionally being substituted and also  
15 optionally including one or two oxygen or nitrogen atoms; or said  $\text{R}^1$  and  $\text{R}^2$  optionally may be bonded together to form an unsaturated ring having 5 to 20 carbon atoms, said ring optionally being substituted and also optionally including one or two oxygen or nitrogen atoms;

- wherein the optional substituents of  $\text{R}^1$ ,  $\text{R}^2$  and of the ring which said  $\text{R}^1$  and  $\text{R}^2$  together  
20 may optionally form, are  $\text{C}_1$  to  $\text{C}_{15}$  linear, branched or cyclic alkyl, alkenyl or aromatic groups;

into a corresponding unsaturated aldehyde or ketone of formula



- 25    wherein  $\text{R}^1$  and  $\text{R}^2$  are as defined in formula (I);

wherein the oxidation is performed by a hypochlorite salt of formula



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and in the presence of a catalytic amount of a N-(2,2,6,6-tetraalkyl-4-piperidiny-N-oxyl)-2-amino-1,3,5-triazine compound.

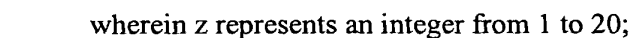
2. The process of claim 1, wherein the unsaturated alcohol is a compound of formula (I),



R<sup>1</sup> represents a hydrogen atom;

15 alkanatrienyl hydrocarbon group that is optionally substituted; and

3. The process of claim 1, characterized in that the N-(2,2,6,6-tetraalkyl-4-  
20 piperidinyl-N-oxyl)-2-amino-1,3,5-triazine is of formula



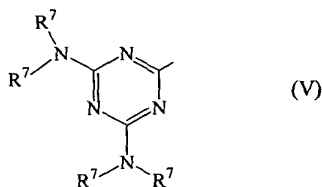
-11-

X represents an oxygen atom or a  $-NR^4$ - group;

$R^4$  represents, simultaneously or independently, a hydrogen atom, a 2,2,6,6-tetramethyl-4-piperidiny group, a 2,2,6,6-tetramethyl-4-piperidiny-N-oxyl radical group or a  $C_1$  to  $C_{15}$  linear, branched or cyclic saturated or unsaturated hydrocarbon group, said hydrocarbon group optionally including one or two oxygen or nitrogen atoms; or two  $R^4$  groups, bonded to the same nitrogen atom, may be bonded together to form a heterocycle having 5 to 7 members and which may contain an oxygen atom;

$R^5$  represents, simultaneously or independently, a hydrogen atom or a  $NR^6_2$  group;

$R^6$  represents, simultaneously or independently, a hydrogen atom, a  $C_1$  to  $C_{20}$  linear, branched or cyclic saturated or unsaturated hydrocarbon group, a 2,2,6,6-tetramethyl-4-piperidiny-N-oxyl radical group, a 2,2,6,6-tetramethyl-4-piperidiny group or a group of formula

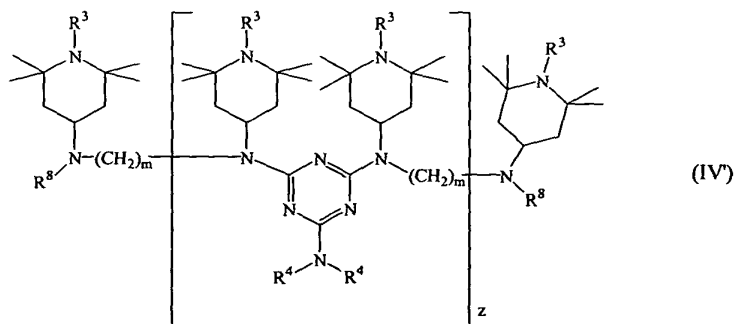


$R^7$  representing, simultaneously or independently, a hydrogen atom, a  $C_1$  to  $C_{12}$  linear or branched alkyl group, a 2,2,6,6-tetramethyl-4-piperidiny-N-oxyl radical group or a 2,2,6,6-tetramethyl-4-piperidiny group; and

Y represents, simultaneously or independently, a  $C_2$  to  $C_{20}$  linear, branched or cyclic alkylene group optionally including one or two oxygen or nitrogen atoms.

20

4. The process of claim 3, wherein the N-(2,2,6,6-tetraalkyl-4-piperidiny-N-oxyl)-2-amino-1,3,5-triazine compound is a polymeric or oligomeric compound of formula



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wherein z represents an integer from 2 to 10;

m represents an integer from 2 to 12;

R<sup>3</sup> is as defined in claim 3;

R<sup>4</sup> represents, simultaneously or independently, a hydrogen atom, a 2,2,6,6-tetramethyl-4-  
5 piperidiny-N-oxyl radical group, a 2,2,6,6-tetramethyl-4-piperidiny group or a C<sub>1</sub> to C<sub>10</sub>  
linear or branched alkyl or alkenyl group; or two R<sup>4</sup> groups, bonded to the same nitrogen  
atom, may be bonded together to form a heterocycle having 6 members and which may  
contain an oxygen atom; and  
R<sup>8</sup> represents, simultaneously or independently, a hydrogen atom, a C<sub>1</sub> to C<sub>10</sub> linear or  
10 branched alkyl or alkenyl group, a 2,2,6,6-tetramethyl-4-piperidiny-N-oxyl radical group,  
a 2,2,6,6-tetramethyl-4-piperidiny group or a group of formula (V).

5. The process of claim 4, wherein the N-(2,2,6,6-tetraalkyl-4-piperidiny-N-oxyl)-2-amino-1,3,5-triazine derivative is a N-oxyl derivative of the polymers having the  
15 CAS Registry Numbers 71878-19-8 or 192268-64-7.

6. The process of claim 1, wherein the hypochlorite salt is selected from the group consisting of NaOCl, KOCl and Ca(OCl)<sub>2</sub>.

20 7. The process of claim 1, wherein one of a bromide salt of formula M'Br or a bicarbonate of formula M'HCO<sub>3</sub> is added to the process, wherein M' is an alkaline metal.

8. The process of claim 1, wherein a bromide salt of KBr or NaBr is added to the process.  
25

9. The process of claim 1, wherein a bicarbonate of KHCO<sub>3</sub> or NaHCO<sub>3</sub> is added to the process.

10. The process of claim 1, wherein the catalyst has a concentration ranging  
30 from 0.02 to 0.15 molar equivalents relative to the amount of alcohol.

11. The process of claim 1, wherein the hypochlorite salt is added to the reaction mixture in an amount of between 0.9 and 2.5 molar equivalents relative to the amount of alcohol.

13. The process of claim 1, which is carried out at a temperature ranging between 0°C and 60°C

14. The process of claim 1, conducted in a solvent.

15. The process of claim 1, conducted in the absence of a solvent.

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